REMARKS

In the Office Action, the Examiner rejects claims 1-17 under 35 U.S.C. § 103(a) as unpatentable over SEKINE et al. (U.S. Patent No. 6,466,576) in view of SAKAMOTO et al. (U.S. Patent No. 6,075,767). Applicant respectfully traverses this rejection.

By the present amendment, Applicant cancels claims 1 and 14 without prejudice or disclaimer, amends claims 15-17 to improve form, and adds new claims 18-23. No new matter has been added by way of the present amendment. Claims 2-13 and 15-23 are pending.

Pending claims 2-13 and 15-17 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over SEKINE et al. in view of SAKAMOTO et al. Applicant respectfully traverses this rejection.

Independent claim 2 is directed to a device for converting a header of a packet to forward the packet to an appropriate one of output ports of a switch fabric. The device includes at least one line interface; a reserved line interface corresponding to each of the at least one line interface; a selector for normally selecting a corresponding line interface to receive a packet stream and, when a failure occurs on a system corresponding to the corresponding line interface, selecting the reserved line interface to receive the packet stream; a header conversion table storing header conversion information for each of the at least one line interface; and a header converter for converting the header of a packet received from the reserved line interface selected by the selector by referring to the header conversion information for the corresponding line interface. SEKINE et al. and SAKAMOTO et al. do not disclose or suggest this combination of features.

For example, SEKINE et al. and SAKAMOTO et al. do not disclose or suggest a header converter for converting the header of a packet received from the reserved line interface selected by the selector by referring to the header conversion information for the corresponding line interface. The Examiner relies on col. 7, lines 20-25, and col. 8, lines 13-18, of SEKINE et al. for allegedly disclosing this feature (Office Action, pg. 3). Applicant disagrees.

At col. 7, lines 19-26, SEKINE et al. discloses:

> The reducing unit 26a is connected to the port for connecting a working line WL equal to a reception line of a presently operable system. The reducing unit 26b is connected to another port for connecting a protection line PL equal to another reception line of a spare operation system. The first-mentioned reducing unit 26a may constitute a reducing unit ACT, and the second-mentioned reducing unit 26b may constitute a reducing unit SBY.

This section of SEKINE et al. merely discloses that a reducing unit 26a is connected to a working line (WL) of an operable system and a protection line (PL) of a spare system. This section of SEKINE et al. in no way discloses or suggests a header converter for converting the header of a packet received from the reserved line interface selected by the selector by referring to the header conversion information for the corresponding line interface, as required by claim 2. In fact, this section of SEKINE et al. does not even relate to header conversion.

At col. 8, lines 13-19, SEKINE et al. discloses:

> The IVC unit 14 is integrally formed by a converting circuit for performing a cell header converting operation, and a processor apparatus for executing a firmware used to perform a setting operation related to this cell header converting operation. Upon receipt of the cell from the MUX 13, this IVC unit 14 firstly converts the I-ICID-A stored in the header of this cell into an ICID-D.

This section of SEKINE et al. discloses an IVC unit 14 that converts the I-ICID-A stored in the header of a cell into an ICID-D. SEKINE et al. discloses that I-ICID-A is a virtual path identifier/virtual circuit identifier (VPI/VCI) stored in the header of the cell (see, for example, col. 7, lines 53-56). Therefore, the conversion that is performed by IVC unit 14 is a VPI/VCI conversion. Neither this section of SEKINE et al. nor any other section of SEKINE et al. discloses or suggests a header converter for converting the header of a packet received from the reserved line interface selected by the selector by referring to the header conversion information for the corresponding line interface, as required by claim 2. The Examiner has not explained how a VPI/VCI conversion can possibly correspond to this feature. The disclosure of SAKAMOTO et al. does not remedy this deficiency in the disclosure of SEKINE et al.

For at least the foregoing reasons, Applicant submits that claim 2 is patentable over SEKINE et al. and SAKAMOTO et al., whether taken alone or in any reasonable combination.

Claims 3-6 and 12 depend from claim 2. Therefore, these claims are patentable over SEKINE et al. and SAKAMOTO et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 2. Moreover, these claims recite additional features not disclosed or suggested by SEKINE et al. and SAKAMOTO et al.

For example, claim 3 recites that the at least one line interface and the reserved line interface have line numbers uniquely assigned thereto. Claim 3 also

recites that a line number of each of the at least one line interface and the reserved line interface is transferred to the header converter. Claim 3 further recites that the header converter includes a line number converter for converting a line number of the reserved line interface to a line number of the corresponding line interface, and a controller for accessing the header conversion information for the corresponding line interface by using the line number of the corresponding line interface. SEKINE et al. and SAKAMOTO et al. do not disclose or suggest this combination of features.

For example, SEKINE et al. and SAKAMOTO et al. do not disclose or suggest a line number converter for converting a line number of the reserved line interface to a line number of the corresponding line interface. The Examiner relies on col. 7, lines 20-25, and col. 8, lines 13-18, of SEKINE et al. for allegedly disclosing this feature (Office Action, pg. 10). Applicant disagrees.

Col. 7, lines 20-25, of SEKINE et al. is reproduced above. That section of SEKINE et al. discloses that a reducing unit 26a is connected to a WL of an operable system and a PL of a spare system. This section of SEKINE et al. in no way discloses or suggests a line number converter for converting a line number of the reserved line interface to a line number of the corresponding line interface, as required by claim 3. In fact, this section of SEKINE et al. does not even relate to converting line numbers.

Col. 8, lines 13-18, of SEKINE et al. is reproduced above. This section of SEKINE et al. discloses an IVC unit 14 that converts the I-ICID-A stored in the header of a cell into an ICID-D. SEKINE et al. discloses that I-ICID-A is a

virtual path identifier/virtual circuit identifier (VPI/VCI) stored in the header of the cell (see, for example, col. 7, lines 53-56). One skilled in the art will appreciate that a VPI/VCI is a path identifier and not a line number that is uniquely assigned to a line interface. Neither this section of SEKINE et al. nor any other section of SEKINE et al. discloses or suggests a line number converter for converting a line number of the reserved line interface to a line number of the corresponding line interface, as required by claim 3. The Examiner has not explained how a VPI/VCI conversion can possibly correspond to this feature. The disclosure of SAKAMOTO et al. does not remedy this deficiency in the disclosure of SEKINE et al.

For at least these additional reasons, Applicant submits that claim 3 is patentable over SEKINE et al. and SAKAMOTO et al., whether taken alone or in any reasonable combination.

Claim 4 recites that when the reserved line interface is selected by the selector due to occurrence of the failure, the line number converter converts the line number of the reserved line interface to the line number of the corresponding line interface. Since, as set forth above with respect to claim 3, SEKINE et al. and SAKAMOTO et al. do not disclose a line number converter, SEKINE et al. and SAKAMOTO et al. cannot disclose the above feature of claim 4.

The Examiner relies on col. 7, lines 20-25, col. 8, lines 13-18, and col. 1, lines 20-30, of SEKINE et al. for allegedly disclosing the feature of claim 4 (Office Action, pp. 10-11). Applicant disagrees.

Col. 7, lines 20-25, of SEKINE et al. is reproduced above. This section of SEKINE et al. discloses that a reducing unit 26a is connected to a WL of an operable system and a PL of a spare system. This section of SEKINE et al. in no way discloses or suggests that when the reserved line interface is selected by the selector due to occurrence of the failure, the line number converter converts the line number of the reserved line interface to the line number of the corresponding line interface, as required by claim 4. In fact, this section of SEKINE et al. does not even relate to converting line numbers.

Col. 8, lines 13-18, of SEKINE et al. is reproduced above. This section of SEKINE et al. discloses an IVC unit 14 that converts the I-ICID-A stored in the header of a cell into an ICID-D. SEKINE et al. discloses that I-ICID-A is a virtual path identifier/virtual circuit identifier (VPI/VCI) stored in the header of the cell (see, for example, col. 7, lines 53-56). One skilled in the art will appreciate that a VPI/VCI is a path identifier and not a line number that is uniquely assigned to a line interface. Neither this section of SEKINE et al. nor any other section of SEKINE et al. discloses or suggests that when the reserved line interface is selected by the selector due to occurrence of the failure, the line number converter converts the line number of the reserved line interface to the line number of the corresponding line interface, as required by claim 4. The Examiner has not explained how a VPI/VCI conversion can possibly correspond to this feature.

At col. 1, lines 20-31, SEKINE et al. discloses:

> As transfer path information of a cell, a VPI (virtual path identifier)/VCI (virtual channel identifier) are stored in a header of a cell. The ATM

> switching unit contains a line processing unit for converting a VPI/VCI into address information about a counter party (transfer destination), and an ATM switch for switching a cell to any one of plural transfer lines based on this address information. Then, when the line processing unit and the switch are actuated, a plurality of cells which are received by the same ATM switching unit and contain the same VPIs/VCIs are transmitted from the same transfer line in this same ATM switching unit.

This section of SEKINE et al. discloses the conversion of a VPI/VCI into address information about a transfer destination. This section of SEKINE et al. in no way discloses or suggests that when the reserved line interface is selected by the selector due to occurrence of the failure, the line number converter converts the line number of the reserved line interface to the line number of the corresponding line interface, as required by claim 4. The disclosure of SAKAMOTO et al. does not remedy the above deficiencies in the disclosure of SEKINE et al.

For at least these additional reasons, Applicant submits that claim 4 is patentable over SEKINE et al. and SAKAMOTO et al., whether taken alone or in any reasonable combination.

Independent claims 7, 15, and 17 recite features similar to features described above with respect to claim 2. Therefore, these claims are patentable over SEKINE et al. and SAKAMOTO et al., whether taken alone or in any reasonable combination, for at least reasons similar to reasons given above with respect to claim 2.

Claims 8-11 and 13 depend from claim 7. Therefore, these claims are patentable over SEKINE et al. and SAKAMOTO et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to

claim 7. Moreover, these claims recite features similar to features described above with respect to claims 3-6 and 12. Therefore, these claims are further patentable over SEKINE et al. and SAKAMOTO et al. for at least reasons similar to reasons given above with respect to claims 3-6 and 12.

Claim 16 depends from claim 15. Therefore, this claim is patentable over SEKINE et al. and SAKAMOTO et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 15. Moreover, this claim recites features similar to features described above with respect to claim 2. Therefore, this claim is further patentable over SEKINE et al. and SAKAMOTO et al. for at least reasons similar to reasons given above with respect to claim 2.

New claims 18-23 recite features not disclosed or suggested by the combination of SEKINE et al. and SAKAMOTO et al. For example, independent claim 18 is directed to a network device including a line interface and a redundant line interface corresponding to the line interface. The network device further includes a header conversion table configured to store header conversion information for the line interface, and a header converter configured to cause the header conversion information for the line interface to be accessed in response to receiving information from the redundant line interface. SEKINE et al. and SAKAMOTO et al., whether taken alone or in any reasonable combination, do not disclose or suggest this combination of features.

Claims 19-21 depend from claim 18. Therefore, these claims are patentable over SEKINE et al. and SAKAMOTO et al. for at least the reasons given above with respect to claim 18.

Independent claim 22 is directed to a network device that includes a first line interface configured to receive a stream of packets; a second line interface configured to serve as a backup to the first line interface; and a header converter configured to receive a packet from the second line interface and convert a header of the packet to appear as if the packet was received from the first line interface. SEKINE et al. and SAKAMOTO et al., whether taken alone or in any reasonable combination, do not disclose or suggest this combination of features.

Claim 23 depends from claim 22. Therefore, this claim is patentable over SEKINE et al. and SAKAMOTO et al. for at least the reasons given above with respect to claim 22.

In view of the foregoing amendment and remarks, Applicant respectfully requests the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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